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Lipsitz & McAllister, LLC 755 MAIN STREET MONROE, CT 06468			EXAMINER ROSSI, JESSICA	
			ART UNIT	PAPER NUMBER

1733

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,293

Applicant(s)

HORNUNG ET AL.

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/13/05, RCE.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 15, 16, 18 and 24-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 17, 19-23 and 40-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/13/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Request for Continued Examination

1. The request filed on 5/13/05 for a RCE under 37 CFR 1.114 based on parent Application No. 09/925,293 is acceptable and a RCE has been established. An action on the RCE follows.

Election/Restrictions

2. The restriction set forth in the office action dated 9/23/03 still applies and therefore Species A (subspecies Aix, subspecies Aiiiz, subspecies Aiiiix and subspecies Aivv) remains elected without traverse while Species B remains withdrawn from further consideration, as acknowledged by the examiner in the office action dated 12/8/03. Therefore, claims 15-16, 18, and 24-39 remain withdrawn from further consideration.

3. It is noted that in the amendment submitted 3/5/04 in response to the first action on the merits dated 12/8/03, Applicant amended claim 1 to include the subject matter of Species A (mounting the second pane to the first pane via an adhesive). If claim 1 is ever allowed, Applicant will have to cancel the claims directed to the non-elected Species B (mounting the second pane to the first pane via a spacer) because these claims depend from claim 1; therefore, if the claims of Species B were being examined a 112 2nd paragraph issue would now exist since Species A and B are being "mixed" and the present specification does not have support for such.

Priority

4. It is noted that parent application 09/882,295 has since issued as US PAT 6,662,523 and therefore Applicant should amend the specification accordingly.

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Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 3-14, 17, 19-20, 23 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR 2612244 (of record) in view of the collective teachings of Guhl et al. (US 6055783; of record), Guhl (US 6260251; of record) and Tibble et al. (US 3573149; of record).

With respect to claim 1, FR '244 is directed to a method for making an integrated multipane window sash. The reference teaches providing a sash frame A having a glazing pane installation opening accessible from a first side thereof and a glazing support surface D2 on a second side thereof. First, the reference teaches inserting a first glazing pane C2 into the opening from the first side and placing an outside surface perimeter of the pane adjacent to the support surface with a first adhesive E3 therebetween. Second, the reference teaches inserting a second glazing pane C1 into the opening from the first side and mounting an inside surface perimeter of the second pane to an inside surface perimeter of the first glazing pane via a second adhesive E2. (Figure, abstract and oral translation)

The reference is silent as to installing a glazing bead along the opening after the panes have been inserted.

The examiner would like to note Applicant's broad definition of "glazing bead" on p. 4, lines 17-23 of the specification. With that said, it is well known in the art to install at least one glazing bead along at least a portion of a glazing pane installation opening after the glazing panes have been inserted into the sash frame wherein the glazing bead hides the adhesives from view,

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as taught by the collective teachings of Guhl '783 (Figure 4; column 7, lines 12-16), Guhl '251 (Figures 6-7 and 9; column 5, lines 14-21) and Tibble (Figure 3; column 4, lines 65-70).

Therefore, it would have been obvious to the skilled artisan at the time of the invention to install at least one glazing bead along at least a portion of the glazing pane installation opening after the glazing panes of FR '244 have been inserted because such is known in the art, as taught by the collective teachings of Guhl '783, Guhl '251 and Tibble, where the glazing bead hides the adhesives from view.

Regarding claims 3-9, 17 and 19, FR '244 teaches such.

Regarding claim 10, FR '244 is silent as to the support surface having a lip that extends around the second side of the sash frame. It would have been obvious to the skilled artisan at the time the invention was made to provide the support surface of FR '244 with a lip because such is known in the art, as taught by Guhl '783 (Figure 4; column 5, lines 55-64), wherein the lip would prevent the adhesive from being squeezed out from between the pane and support surface so as not to leave a messy appearance (Guhl '783; column 5, lines 60-64).

Regarding claim 11, FR '244 is silent as to providing a desiccant between the panes. It would have been obvious to the skilled artisan at the time the invention was made to provide a desiccant between the panes of FR '244 because such is known in the art, as taught by Guhl '783 (column 6, lines 38-53), wherein such removes moisture from between the panes.

Regarding claim 12, the skilled artisan would have appreciated that a glazing bead, such as one of the examples provided by Guhl '251 (Figure 9; column 6, lines 54-58), would exert pressure on the outside surface perimeter of the last glazing pane of FR '244, thereby biasing the panes toward the support surface, especially since Guhl '251 teaches the bead can be a snap-in

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bead 91 having a lip portion (Figure 9) that presses against the last pane, just like the glazing bead 108 depicted in Figure 17 of the present invention.

Regarding claim 13, FR '244 is silent as to providing setting blocks on the sash frame to facilitate positioning of at least one pane. It would have been obvious to the skilled artisan at the time the invention was made to provide setting blocks on the sash frame of FR '244 such that the blocks are located in the space between the panes and the sash frame depicted in Figure 1 because such is known in the art, as taught by Guhl '783 (Figure 4; column 6, lines 31-37), wherein these blocks would absorb differential expansion and contraction of the panes and sash (Guhl '783; column 6, lines 35-37) while also facilitating positioning of the panes.

Regarding claim 14, the present invention achieves floating of the first and second panes by attaching the first pane to the support surface by means of an adhesive and mounting the first and second panes to each other by means of an adhesive (Figure 17). Therefore, since FR '244 teaches the first pane adhesively attached to the support surface and the first and second panes adhesively mounted to each other, the skilled artisan would have appreciated that the first pane of FR '244 would float on the support surface while the second pane of FR '244 would float on the first pane.

Regarding claim 20, FR '244 is silent as to filling the space between the panes with an inert gas. It would have been obvious to the skilled artisan at the time the invention was made to fill the space between the panes of FR '244 with an inert gas and seal the space to prevent leaking because such is known in the art, as taught by Guhl '783, wherein such provides thermal insulation (Guhl '783; column 6, line 54 – column 7, line 10).

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Regarding claim 23, selection of a particular method for attaching the glazing bead would have been within purview of the skilled artisan at the time the invention was made. However, it would have been obvious to the skilled artisan to attach the glazing bead using adhesive because such is known in the art, as taught by Tibble (Figure 3; column 4, lines 65-70), wherein this eliminates the need for mechanical fasteners.

Regarding claim 40, Tibble teaches the glazing bead comprising a flexible adhesive material (column 4, lines 65-70).

Regarding claims 41-42, FR '244 is silent as to providing dam legs to constrain the adhesive. It is known in the art to provide an adhesive 46 between at least a portion of the outside perimeter of the first pane 20 and the support surface 38 and provide a first and second dam legs 39, 54 between the support surface and an inside perimeter of the sash frame to isolate the adhesive from a space between the first and second panes, as taught by Guhl '783 (Figure 4; column 5, lines 5, line 65 – column 6, line 5). Please note similarities between Figure 4 of Guhl '783 and Figure 17 of the present invention having dam legs 111, 113.

Therefore, it would have been obvious to the skilled artisan at the time of the invention to provide dam legs between the support surface and an inside perimeter of the sash frame of FR '244 to isolate the adhesive from a space between the first and second panes because such is known in the art, as taught by Guhl '783, where this prevents adhesive from migrating to undesirable locations.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over FR '244 and the collective teachings of Guhl '783, Guhl '251 and Tibble as applied to claim 1 above, and further in view of DE 951,040 (of record).

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Regarding claim 2, FR '244 is silent as to inserting an additional pane into the opening and mounting it to a previous pane prior to glazing bead installation. Selection of the number of panes forming the glazing panel of FR '244 would have been within purview of the skilled artisan at the time the invention was made. However, it would have been obvious to the skilled artisan to use three panes because such is known in the art, as taught by DE '040 (Figure 2), where increasing the number of panes improves the insulating properties of the window.

8. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR '244 and the collective teachings of Guhl '783, Guhl '251 and Tibble as applied to claim 1 above, and further in view of the collective teachings of Silverman (US 6301843; of record) and Leopold (US 5313761; of record).

Regarding claims 21 and 22, FR '244 is silent as to installing a spacing clip between the first and second panes. It is known in the art to install spacing/retaining clips between first and second panes of an insulating glass unit so that muntin bars can be inserted into these clips, as taught by the collective teachings of Silverman (column 1, lines 10-26) and Leopold (Figure 9; column 8, lines 35-38 and 45-46 and 52-53).

Therefore, it would have been obvious to the skilled artisan at the time the invention was made to install spacing/retaining clips between the panes of FR '244 so that muntin bars can be placed therein because such is known in the art, as taught by Silverman and Leopold, wherein the muntin bars impart a certain decorative appearance to the window (Silverman; column 1, lines 9-11).

9. Claims 1, 3-5, 7-9, 12, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guhl '251 in view of FR 2301678 (of record).

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*The examiner would like to point out that Applicant's step of mounting the second pane to the first pane *via a second adhesive* does not limit the claim to a second adhesive that contacts both the first and second panes.

With respect to claim 1, Guhl '251 teaches making an integrated multipane window sash (abstract). The reference teaches providing a sash frame 22 (portion 36 of sash frame depicted in Figure 6) having a glazing pane installation opening accessible from a first side thereof and a glazing pane support surface 42 on a second side thereof (Figure 6; column 5, lines 4-20; column 6, lines 49-60). The reference teaches inserting glazing panel 24 comprising first and second panes into the opening from the first side and placing an outside perimeter of the first pane adjacent to the support surface with a first adhesive therebetween (Figures 6-9; column 5, lines 4-13). The reference then teaches installing at least one glazing bead 46/91 along at least a portion of the opening after the panes have been inserted (Figures 6 and 9; column 5, lines 14-21; column 6, lines 54-58; column 7, lines 28-29).

The reference is silent as to first inserting the first pane and placing it adjacent to the support surface with the first adhesive therebetween and then inserting the second pane and mounting it to the first pane via a second adhesive.

It is known in the art to form a glazing unit by inserting a second pane into an opening of a sash frame and mounting the second pane to first pane, which has already been inserted into the sash frame, via an adhesive 4 present on both sides of a spacer 1, as taught by FR '678 (Figures 1 and 4; abstract; oral translation).

One reading Guhl '251 as a whole would have appreciated that where or when construction of the glazing unit takes place is not critical to the invention. Therefore, it would

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have been obvious to the skilled artisan at the time of the invention to first insert the first glazing pane into the opening from the first side and place it adjacent to the support surface with the first adhesive therebetween and then insert the second pane into the opening from the first side and mount the second pane to the first pane via a second adhesive present on both sides of the spacer 47 of Guhl '251 because such is known in the art, as taught by FR '678, where this eliminates the need to pre-fabricate the glazing unit which could get damaged while being transported from the pre-fabrication site to the installation site.

Regarding claims 3-5 and 7, FR '678 teaches such (Figures 1 and 4; oral translation).

Regarding claim 8, using the same adhesives for the first and second adhesive would have been within purview of the skilled artisan; however, it would have been obvious to do so thereby eliminating the need to purchase another type of adhesive.

Regarding claim 9, Guhl '251 (column 5, lines 9-11) and FR '678 (oral translation) teach such.

Regarding claim 12, the skilled artisan would have appreciated that one of the suggested glazing beads disclosed by Guhl '251 would exert pressure on the outside surface perimeter of the last glazing pane, thereby biasing the panes toward the support surface; note Guhl '251 teaches the bead can be a snap-in bead 91 having a lip portion (Figure 9) that presses against the last pane, just like the glazing bead 108 depicted in Figure 17 of the present invention.

Regarding claim 17, Guhl '251 teaches applying an adhesive to at least a portion of the outside surface of the first pane to adhesively mount it to the support surface (column 5, lines 10-13); note present claim does not state that adhesive has to be applied to the pane before the pane is mounted to the support surface.

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Regarding claim 19, Guhl '251 teaches the second pane being mounted to the first pane with a space between them (Figure 6).

10. Claims 1, 3-9, 12, 14, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guhl '251 in view of the collective teachings of Laroche et al. (US 4198254) and FR '244.

*It is noted that the present invention is directed to mounting the second pane to the first pane via a second adhesive that contacts both the first and second panes and also serves as a spacer for the panes (p. 24, line 26 – p. 25, line 15 and Figure 12) even though present claim 1 is not limited to such. However, the following rejection is set forth to expedite prosecution.

With respect to claim 1, Applicant is directed to paragraph 9 above for a complete discussion of Guhl '251.

It is known in the art to form a glazing unit by inserting a second pane into an opening of a sash frame and mounting the second pane to first pane, which has already been inserted into the sash frame, via an adhesive that also serves as a spacer for the panes, as taught by the collective teachings of Laroche (Figure 4; column 1, lines 6-35 and 48-62; column 1, line 66 – column 2, line 8; column 2, lines 47-49 and 59-60; column 12, lines 41-65; column 13, lines 6-12). Laroche teaches such an in situ formed adhesive-spacer 15 making it much easier to assemble a glazing unit as opposed to prior art methods that used a pre-formed spacer (column 2, lines 1-17).

One reading Guhl '251 as a whole would have appreciated that where, when or how construction of the glazing unit takes place is not critical to the invention. Therefore, it would have been obvious to the skilled artisan at the time of the invention to first insert the first glazing

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pane into the opening from the first side of the sash frame and place it adjacent to the support surface with the first adhesive therebetween and then insert the second pane into the opening from the first side and mount the second pane to the first pane via a second adhesive that would serve as a spacer for the panes, thereby replacing the pre-formed spacer 47 of Guhl '251, because such is known in the art, as taught by the collective teachings of Laroche and FR '244, where this eliminates the need to use a pre-formed spacer thereby simplifying the glazing unit assembly process.

Regarding claims 3-5 and 7-9, Laroche (Figure 4; column 12, lines 62-64) and/or FR '244 (Figure; abstract) teach such.

Regarding claim 6, Guhl '251 teaches the spacer 47 contacting the frame (Figure 9); therefore, it would have been obvious to the skilled artisan to have the in situ adhesive-spacer of Guhl '251 in view of Laroche and FR '244 contact a portion of the frame because this would further prevent the glazing unit from dislodging from the sash frame.

Regarding claim 12, the skilled artisan would have appreciated that one of the suggested glazing beads disclosed by Guhl '251 would exert pressure on the outside surface perimeter of the last glazing pane, thereby biasing the panes toward the support surface; note Guhl '251 teaches the bead can be a snap-in bead 91 having a lip portion (Figure 9) that presses against the last pane, just like the glazing bead 108 depicted in Figure 17 of the present invention.

Regarding claim 14, the present invention achieves floating of the first and second panes by attaching the first pane to the support surface by means of an adhesive and mounting the first and second panes to each other by means of an adhesive (Figure 17). Therefore, since Guhl '251 in view of Laroche and FR '244 teach the first pane adhesively attached to the support surface

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and the first and second panes adhesively mounted to each other, the skilled artisan would have appreciated that the first pane of Guhl '251 would float on the support surface while the second pane of Guhl '251 would float on the first pane.

Regarding claim 17, Guhl '251 teaches applying an adhesive to at least a portion of the outside surface of the first pane to adhesively mount it to the support surface (column 5, lines 10-13); note present claim does not state that adhesive has to be applied to the pane before the pane is mounted to the support surface.

Regarding claim 19, Guhl '251 teaches the second pane being mounted to the first pane with a space between them (Figure 6).

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guhl '251 in view of FR '678 or the collective teachings of Laroche and FR '244 as applied to claim 1 above, and further in view of DE '040.

Regarding claim 2, Guhl '251 is silent as to inserting an additional pane into the opening and mounting it to a previous pane prior to glazing bead installation. Selection of the number of panes forming the glazing panel of Guhl '251 would have been within purview of the skilled artisan at the time the invention was made. However, it would have been obvious to the skilled artisan to use three panes because such is known in the art, as taught by DE '040 (Figure 2), where increasing the number of panes improves the insulating properties of the window.

12. Claims 10-11, 13, 20 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guhl '251 in view of FR '678 or the collective teachings of Laroche and FR '244 as applied to claim 1 above, and further in view of Guhl '783.

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Regarding claim 10, Guhl '251 is silent as to the support surface having a lip that extends around the second side of the sash frame. It would have been obvious to the skilled artisan at the time the invention was made to provide the support surface of Guhl '251 with a lip because such is known in the art, as taught by Guhl '783 (Figure 4; column 5, lines 55-64), wherein the lip would prevent the adhesive from being squeezed out from between the pane and support surface so as not to leave a messy appearance (Guhl '783; column 5, lines 60-64).

Regarding claim 11, Guhl '251 is silent as to providing a desiccant between the panes. It would have been obvious to the skilled artisan at the time the invention was made to provide a desiccant between the panes of Guhl '251 because such is known in the art, as taught by Guhl '783 (column 6, lines 38-53), wherein such removes moisture from between the panes.

Regarding claim 13, Guhl '251 is silent as to providing setting blocks on the sash frame to facilitate positioning of at least one pane. It would have been obvious to the skilled artisan at the time the invention was made to provide setting blocks on the sash frame of Guhl '251 such that the blocks are located in the space between the panes and the sash frame depicted in Figure 1 because such is known in the art, as taught by Guhl '783 (Figure 4; column 6, lines 31-37), wherein these blocks would absorb differential expansion and contraction of the panes and sash (Guhl '783; column 6, lines 35-37) while also facilitating positioning of the panes.

Regarding claim 20, Guhl '251 is silent as to filling the space between the panes with an inert gas. It would have been obvious to the skilled artisan at the time the invention was made to fill the space between the panes of Guhl '251 with an inert gas and seal the space to prevent leaking because such is known in the art, as taught by Guhl '783, wherein such provides thermal insulation (Guhl '783; column 6, line 54 – column 7, line 10).

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Regarding claims 41-42, Guhl '251 is silent as to providing dam legs to constrain the adhesive. It is known in the art to provide an adhesive 46 between at least a portion of the outside perimeter of the first pane 20 and the support surface 38 and provide a first and second dam legs 39, 54 between the support surface and an inside perimeter of the sash frame to isolate the adhesive from a space between the first and second panes, as taught by Guhl '783 (Figure 4; column 5, lines 5, line 65 – column 6, line 5). Please note similarities between Figure 4 of Guhl '783 and Figure 17 of the present invention having dam legs 111, 113.

Therefore, it would have been obvious to the skilled artisan at the time of the invention to provide dam legs between the support surface and an inside perimeter of the sash frame of Guhl '251 to isolate the adhesive from a space between the first and second panes because such is known in the art, as taught by Guhl '783, where this prevents adhesive from migrating to undesirable locations.

13. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guhl '251 in view of FR '678 or the collective teachings of Laroche and FR '244 as applied to claim 1 above, and further in view of the collective teachings of Silverman and Leopold.

Regarding claims 21 and 22, Guhl '251 is silent as to installing a spacing clip between the first and second panes. It is known in the art to install spacing/retaining clips between first and second panes of an insulating glass unit so that muntin bars can be inserted into these clips, as taught by the collective teachings of Silverman (column 1, lines 10-26) and Leopold (Figure 9; column 8, lines 35-38 and 45-46 and 52-53).

Therefore, it would have been obvious to the skilled artisan at the time the invention was made to install spacing/retaining clips between the panes of Guhl '251 so that muntin bars can be

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placed therein because such is known in the art, as taught by Silverman and Leopold, wherein the muntin bars impart a certain decorative appearance to the window (Silverman; column 1, lines 9-11).

14. Claims 23 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guhl '251 in view of FR '678 or the collective teachings of Laroche and FR '244 as applied to claim 1 above, and further in view of Tibble.

Regarding claim 23, Guhl '251 is silent as to applying an adhesive between the glazing bead and an adjacent glazing pane. One reading Guhl '251 as a whole would have appreciated that the type of glazing bead, its material, and its method of attachment is not critical to the invention (Figures 6 and 9; column 6, lines 47-58; column 7, lines 26-30). Therefore, selection of a particular method for attaching the glazing bead would have been within purview of the skilled artisan at the time the invention was made. However, it would have been obvious to the skilled artisan to attach the glazing bead of Guhl '251 using adhesive because such is known in the art, as taught by Tibble (Figure 3; column 4, lines 65-70), wherein this eliminates the need for mechanical fasteners.

Regarding claim 40, Tibble teaches the glazing bead comprising a flexible adhesive material (column 4, lines 65-70).

15. Claims 1, 3-14, 17, 19-20, 23 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laroche in view of the collective teachings of Guhl '783, Guhl '251 and Tibble.

With respect to claim 1, Laroche is directed to a method for making an integrated multipane window sash. The reference teaches providing a sash frame 13 having a glazing pane

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installation opening accessible from a first side thereof and a glazing support surface on a second side thereof. First, the reference teaches inserting a first glazing pane 11 into the opening from the first side and placing an outside surface perimeter of the pane adjacent to the support surface with a first adhesive 12 therebetween. Second, the reference teaches inserting a second glazing pane 10 into the opening from the first side and mounting an inside surface perimeter of the second pane to an inside surface perimeter of the first glazing pane via a second adhesive 15. (Figure 4; column 12, line 41 – column 13, line 12)

The reference is silent as to installing a glazing bead along the opening after the panes have been inserted.

The examiner would like to note Applicant's broad definition of "glazing bead" on p. 4, lines 17-23 of the specification. With that said, it is well known in the art to install at least one glazing bead along at least a portion of a glazing pane installation opening after the glazing panes have been inserted into the sash frame wherein the glazing bead serves a decorative purpose while also hiding such things as adhesives from view, as taught by the collective teachings of Guhl '783 (Figure 4; column 7, lines 12-16), Guhl '251 (Figures 6-7 and 9; column 5, lines 14-21) and Tibble (Figure 3; column 4, lines 65-70).

Therefore, it would have been obvious to the skilled artisan at the time of the invention to install at least one glazing bead along at least a portion of the glazing pane installation opening after the glazing panes of Laroche have been inserted because such is known in the art, as taught by the collective teachings of Guhl '783, Guhl '251 and Tibble, where the glazing bead improves the aesthetics of the window sash.

Regarding claims 3-5 and 7-9, Laroche teaches such.

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Regarding claim 6, it would have been obvious to the skilled artisan to have the in situ adhesive-spacer of Laroche contact a portion of the frame because this would further prevent the glazing unit from dislodging from the sash frame.

Regarding claim 10, Laroche teaches such (Figure 4).

Regarding claim 11, Laroche is silent as to providing a desiccant between the panes. It would have been obvious to the skilled artisan at the time the invention was made to provide a desiccant between the panes of Laroche because such is known in the art, as taught by Guhl '783 (column 6, lines 38-53), wherein such removes moisture from between the panes.

Regarding claim 12, the skilled artisan would have appreciated that a glazing bead, such as one of the examples provided by Guhl '251 (Figure 9; column 6, lines 54-58), would exert pressure on the outside surface perimeter of the last glazing pane of Laroche, thereby biasing the panes toward the support surface, especially since Guhl '251 teaches the bead can be a snap-in bead 91 having a lip portion (Figure 9) that presses against the last pane, just like the glazing bead 108 depicted in Figure 17 of the present invention.

Regarding claim 13, Laroche is silent as to providing setting blocks on the sash frame to facilitate positioning of at least one pane. It would have been obvious to the skilled artisan at the time the invention was made to provide setting blocks on the sash frame of Laroche such that the blocks are located in the space between the panes and the sash frame depicted in Figure 1 because such is known in the art, as taught by Guhl '783 (Figure 4; column 6, lines 31-37), wherein these blocks would absorb differential expansion and contraction of the panes and sash (Guhl '783; column 6, lines 35-37) while also facilitating positioning of the panes.

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Regarding claim 14, the present invention achieves floating of the first and second panes by attaching the first pane to the support surface by means of an adhesive and mounting the first and second panes to each other by means of an adhesive (Figure 17). Therefore, since Laroche teaches the first pane adhesively attached to the support surface and the first and second panes adhesively mounted to each other, the skilled artisan would have appreciated that the first pane of Laroche would float on the support surface while the second pane of Laroche would float on the first pane.

Regarding claim 20, Laroche is silent as to filling the space between the panes with an inert gas. It would have been obvious to the skilled artisan at the time the invention was made to fill the space between the panes of Laroche with an inert gas and seal the space to prevent leaking because such is known in the art, as taught by Guhl '783, wherein such provides thermal insulation (Guhl '783; column 6, line 54 – column 7, line 10).

Regarding claim 23, selection of a particular method for attaching the glazing bead would have been within purview of the skilled artisan at the time the invention was made. However, it would have been obvious to the skilled artisan to attach the glazing bead using adhesive because such is known in the art, as taught by Tibble (Figure 3; column 4, lines 65-70), wherein this eliminates the need for mechanical fasteners.

Regarding claim 40, Tibble teaches the glazing bead comprising a flexible adhesive material (column 4, lines 65-70).

Regarding claims 41-42, Laroche teaches such (Figure 4).

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16. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laroche in view of the collective teachings of Guhl '783, Guhl '251 and Tibble as applied to claim 1 above, and further in view of DE '040.

Regarding claim 2, Laroche is silent as to inserting an additional pane into the opening and mounting it to a previous pane prior to glazing bead installation. Selection of the number of panes forming the glazing panel of Laroche would have been within purview of the skilled artisan at the time the invention was made. However, it would have been obvious to the skilled artisan to use three panes because such is known in the art, as taught by DE '040 (Figure 2), where increasing the number of panes improves the insulating properties of the window.

17. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laroche in view of the collective teachings of Guhl '783, Guhl '251 and Tibble as applied to claim 1 above, and further in view of the collective teachings of Silverman and Leopold.

Regarding claims 21 and 22, Laroche is silent as to installing a spacing clip between the first and second panes. It is known in the art to install spacing/retaining clips between first and second panes of an insulating glass unit so that muntin bars can be inserted into these clips, as taught by the collective teachings of Silverman (column 1, lines 10-26) and Leopold (Figure 9; column 8; lines 35-38 and 45-46 and 52-53).

Therefore, it would have been obvious to the skilled artisan at the time the invention was made to install spacing/retaining clips between the panes of Laroche so that muntin bars can be placed therein because such is known in the art, as taught by Silverman and Leopold, wherein the muntin bars impart a certain decorative appearance to the window (Silverman; column 1, lines 9-11).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine R. Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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